References and resources

Tip sheets and information for home, school and work from the American Lung Association

www.healthhouse.org www.lung.org/healthy-air

General information for builders and homeowners

www.epa.gov/indoorairPLUS

Information on Radon and testing

www.doh.wa.gov/ehp/rp/environmental/radon.htm www.epa.gov/radon/pubs/citguide.html

Radon testing kits

www.Radon.com

Guide to third-party certified lowemitting products and materials

www.greenguard.org www.ecologo.org www.greenseal.org

For Children: Chemicals around your house

www.epa.gov/kidshometour/tour.htm

Facts about harmful chemicals in Environmental Tobacco Smoke

www.cancer.gov/cancertopics/factsheet/ Tobacco/ETS

Information on NW Ductless Heat Pump project

www.goingductless.com

Internet search keywords and phrases

VOCs, indoor air pollution, green cleaning products, radon, spot ventilation, healthy home, IAQ, carbon monoxide

Clark County **Energy Efficiency Services**

1300 Franklin Street Vancouver WA 98660 (360) 397-2375

www.PlanetClark.com www.clark.wa.gov/development

Energy Efficiency Services is supported by a Department of Energy American Recovery and Reinvestment Block Grant.



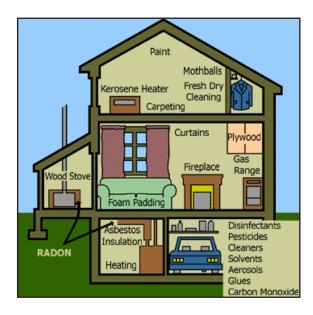




For an alternate format, contact the Clark County ADA Compliance Office.

Phone: (360) 397-2322 Relay: 711 or (800) 833-6384 E-mail: ADA@clark.wa.gov

Healthy Indoor Air What is your home's IAQ*?



*Indoor air quality is the condition of the air within and around your home as it relates to health and comfort. We've listed steps you can take to make your IAQ as healthy as possible.



Did you know?

Indoor air pollution poses a potentially high risk to human health.

- People spend an average of 90 percent of their time indoors.
- Indoor air is typically 2 to 5 times more polluted than outdoors, often up to 100 times more polluted.
- Contributions to **indoor air pollution** include:
 - Mold and mildew
 - Environmental tobacco smoke
 - Petrochemical building materials, including vinyl
 - Furniture and cabinetry with urea formaldehyde
 - Paints, air fresheners, and cleaning products
 - Radon which is the second leading cause of lung cancer

Clark County has been designated a high radon potential county by the Environmental Protection Agency.

"Radon kills more people in the U.S. each year than drunk driving."

Source: www.epa.gov

Steps to healthier indoor air

Avoid and eliminate VOCs and other toxins

- Volatile Organic Compounds (VOCs) can emit potentially harmful gasses over long periods of time.
- Choose household cleaners, paints, finishes and solvents with low or no VOCs.
- Furniture, cabinets, and flooring with pressed wood often contain potentially harmful urea formaldehyde.
- Don't use air fresheners, especially those that plug in.

Ventilate properly

- Fans in the kitchen and bathrooms should exhaust to the outside. A simple test can assure that all exhaust systems are working properly: a tissue held up a few inches from a fan should be drawn to the grill; if not, repair or replace the unit.
- Always run bathroom fans for at least 15-20 minutes after showers and baths; automatic timers are inexpensive and work well.
- Have your furnace serviced regularly.
- Consider a heat recovery ventilation system if you have a forced air heating/cooling system.
- Have your chimney checked and cleaned regularly.

Filtrate

- Change or clean your furnace filter at least every three months and more often if you have pets or a high traffic home.
- Invest in quality furnace filters.
- Have your air ducts professionally cleaned every two to three years.

Separate

- Keep gas cans, paints and other noxious chemicals in an out-building away from your house.
- If you have an attached garage, be sure the door to the house seals properly and keep it closed.
- Consider installing an automatic fan in the garage to remove fumes whenever the garage door is raised.

Keep it clean and dry

- Water, clutter and dust permit and/ or encourage the growth of mold, mildew, mites, insects and rodents, all of which can cause allergic reactions or serious illness.
- Provide mats for wiping shoes at all doors or remove your shoes.

Test and monitor

- Install carbon monoxide detectors if you have any combustion appliances (e.g. gas stove or gas hot water heater) or an attached garage.
- Test carbon monoxide and smoke detectors regularly.

- Clark County is designated as a
 potentially high radon area with an
 average rate of 3 picocuries per liter
 vs the average national indoor air
 radon level of 1.3 pCi/L. Radon gas is
 produced by decaying rock.
 - Radon test kits are readily available at hardware stores.
 - Prevent radon contamination, if necessary, by installing a soil-gasretarder membrane and venting crawl spaces to the outside.

Remove asbestos and lead paint

- If you suspect your home has asbestos-wrapped pipes or siding, hire a professional to inspect and remove it if necessary. Otherwise do not disturb it in any way.
- If your home was built before 1978, it may contain lead paint, which can turn to dust when windows are raised and lowered, contributing to lead poisoning. Even painting over the old paint is not always adequate. It is best to hire a professional to remove it properly.

Eliminate second-hand smoke

- According to the National Cancer Institute, second hand smoke from burning tobacco products contains at least 69 chemicals known to cause cancer.
- Don't smoke indoors.